

Remarks

Applicants have reviewed this Application in light of the Office Action mailed October 4, 2006. Applicants respectfully request reconsideration and allowance of all pending claims.

Claims 11-20 Recite Patentable Subject Matter

The Examiner rejects Claims 11-20 under 35 U.S.C. § 101 because, according to the Examiner, “the claimed invention is directed to non-statutory subject matter.” To expedite issuance of a patent from this Application, Applicants have made clarifying amendments to independent Claim 11. Applicants respectfully request reconsideration and allowance of independent Claim 11 and all its dependent claims.

**Independent Claims 1, 11, and 21 are Allowable Over
the Proposed *Huang-Kashyap* Combination**

The Examiner rejects independent Claims 1, 11, and 21 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,748,882 to Huang (“*Huang*”) in view of U.S. Patent No. 7,016,299 to Kashyap (“*Kashyap*”).

Huang merely discloses daemons in nodes monitoring the statuses of the processes local to their nodes and the statuses of other nodes. (Column 5, Lines 6-8). When a node fails, a daemon watching the node notes the failure and broadcasts messages to surviving nodes to modify their node lists to reflect the loss of the node. (Column 5, Lines 16-19).

Kashyap merely discloses a fabric that includes a number of switches and a router. (Figure 3 and Column 5, Lines 59-63). In *Kashyap*, the fabric is a network. (Column 1, Lines 31-40, and Column 5, Lines 59-63). In the fabric, a switch is connected to multiple nodes. (Figures 11-13 and Column 9, Lines 52-56). The switch is made up of two sub-switches and has ports that connect to the nodes, respectively. (Figures 11-13 and Column 9, Lines 52-56). As a product, the switch is a single device. (Column 9, Lines 66-67). Because a subnet manager controlling the entire fabric routes to a port on one of the sub-switches of

the switch, routing to the ports of the switch is seamlessly integrated with the subnet manager. (Column 10, Lines 37-40).

Independent Claim 1 of this Application recites:

A method for managing HPC node failure comprising:
determining that one of a plurality of HPC nodes has failed, each HPC node comprising an integrated fabric; and
removing the failed node from a virtual list of HPC nodes, the virtual list comprising one logical entry for each of the plurality of HPC nodes.

Independent Claims 11 and 21 recite limitations that are similar to the limitations recited in independent Claim 1.

As the Examiner acknowledges, *Huang* fails to disclose, teach, or suggest ***each HPC node comprising an integrated fabric***, as recited in independent Claim 1. However, the Examiner asserts that *Kashyap* makes up for these deficiencies of *Huang*. Applicants respectfully disagree with the Examiner. Even assuming for the sake of argument that the nodes in *Kashyap* could be properly considered ***a plurality of HPC nodes***, as recited in independent Claim 1, and that the switches and the router in *Kashyap* (collectively or individually) could properly be considered ***an integrated fabric***, as recited in independent Claim 1, *Kashyap* would still fail to disclose, teach, or suggest ***each*** of the nodes in *Kashyap* ***comprising an integrated fabric***, as recited in independent Claim 1. Nowhere does *Kashyap* disclose, teach, or suggest that any of the nodes in *Kashyap* comprises any of the switches in *Kashyap* or the router in *Kashyap*. Instead *Kashyap* clearly describes and illustrates the nodes *Kashyap* as being entirely separate from the switches in *Kashyap* and the router in *Kashyap*.

Therefore, even assuming for the sake of argument that the proposed *Huang-Kashyap* combination were proper, the proposed *Huang-Kashyap* combination would still fail to disclose, teach, or suggest limitations recited in independent Claim 1. As a result, the proposed *Huang-Kashyap* combination does not establish a *prima facie* case of obviousness against independent Claim 1, as required by the M.P.E.P. and governing Federal Circuit case law.

Moreover, the Examiner has not properly demonstrated any teaching, suggestion, or motivation in *Huang, Kashyap*, or knowledge generally available to persons having ordinary skill in the art at the time of the invention to modify *Huang, Kashyap*, or the proposed *Huang-Kashyap* combination to make up for any of the deficiencies of *Huang, Kashyap*, and the proposed *Huang-Kashyap* combination noted above. The Examiner merely states, “One of ordinary skill in the art at the time [of] the invention would have been motivated to make the combination because Huang discloses a method of detecting a node failure. Kashyap discloses a network node failover using path rerouting by manager component or switch port remapping.”

The question raised under 35 U.S.C. § 103(a) is whether the prior art taken as a whole would suggest the claimed invention taken as a whole to a person having ordinary skill in the art at the time of the invention. Accordingly, even if all elements of a claim are disclosed in various prior art references, which is certainly not the case here as discussed below, the claimed invention taken as a whole cannot be said to be obvious without some reason given in the prior art why a person having ordinary skill at the time of the invention would have been prompted to modify the teachings of a reference or combine the teachings of multiple references to arrive at the claimed invention.

The M.P.E.P. sets forth the strict legal standard for establishing a *prima facie* case of obviousness based on modification or combination of prior art references.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references where combined) must teach or suggest all the claim limitations.

M.P.E.P. ch. 2142 (Rev. 3, Aug. 2005). The teaching, suggestion, or motivation for the modification or combination and the reasonable expectation of success “must both be found in the prior art, and not based on applicant’s disclosure.” *Id.* (citations omitted). “Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation

to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art” at the time of the invention. M.P.E.P. ch. 2143.01 (Rev. 3, Aug. 2005). Even the fact that references *can* be modified or combined does not render the resulting modification or combination obvious unless the prior art teaches or suggests the desirability of the modification or combination. *See Id.* (citations omitted). Moreover, to “establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. All words in a claim must be considered in judging the patentability of that claim against the prior art.” M.P.E.P. ch. 2143.03 (Rev. 3, Aug. 2005) (citations omitted).

The governing Federal Circuit case law makes this strict legal standard even more clear.¹ According to the Federal Circuit, “a showing of a suggestion, teaching, or motivation to combine or modify prior art references is an essential component of an obviousness holding.” *In re Sang-Su Lee*, 277 F.3d 1338, 1343, 61 U.S.P.Q.2d 1430, 1433 (Fed. Cir. 2002) (quoting *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 U.S.P.Q.2d 1456, 1459 (Fed. Cir. 2000)). “Evidence of a suggestion, teaching, or motivation . . . may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, the nature of the problem to be solved.” *In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). However, the “range of sources available . . . does not diminish the requirement for actual evidence.” *Id.* Although a prior device “may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so.” *In re Mills*, 916 F.2d at 682, 16 U.S.P.Q.2d at 1432; *see also In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457-58 (Fed. Cir. 1998) (holding a *prima facie* case of obviousness not made where the combination of the references taught every element of the claimed invention but did not provide a motivation to combine); *In Re Jones*, 958 F.2d 347, 351, 21 U.S.P.Q.2d 1941, 1944 (Fed. Cir. 1992) (“Conspicuously missing from this record is any evidence, other than the PTO’s speculation (if that can be called evidence) that one of ordinary skill in the herbicidal art would have been motivated to make the modification of the prior art salts

¹ Note M.P.E.P. ch. 2145(X)(C) (Rev. 3, Aug. 2005) (“The Federal Circuit has produced a number of decisions overturning obviousness rejections due to a lack of suggestion in the prior art of the desirability of combining references.”).

necessary to arrive at” the claimed invention.). Even a determination that it would have been obvious to one of ordinary skill in the art at the time of the invention to try the proposed modification or combination is not sufficient to establish a *prima facie* case of obviousness. *See In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q.2d 1596, 1599 (Fed. Cir. 1988).

The M.P.E.P. and the Federal Circuit also repeatedly warn against using an applicant’s disclosure as a blueprint to reconstruct the claimed invention. For example, the M.P.E.P. states, “The tendency to resort to ‘hindsight’ based upon applicant’s disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.” M.P.E.P. ch. 2142. (Rev. 3, Aug. 2005). The governing Federal Circuit cases are equally clear.

A critical step in analyzing the patentability of claims pursuant to [35 U.S.C. § 103(a)] is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. . . . Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one “to fall victim to the insidious effect of a hindsight syndrome wherein that which only the invention taught is used against its teacher.”

In re Kotzab, 217 F.3d 1365, 1369, 55 U.S.P.Q.2d 1313, 1316 (Fed. Cir. 2000) (citations omitted). In *In re Kotzab*, the court noted that to prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the examiner to show a motivation to combine the references that create the case of obviousness. *See id*; *see also*, e.g., *Grain Processing Corp. v. American Maize-Products*, 840 F.2d 902, 907, 5 U.S.P.Q.2d 1788, 1792 (Fed. Cir. 1988). Similarly, in *In re Dembiczak*, the Federal Circuit reversed a finding of obviousness by the Board, explaining that the required evidence of such a teaching, suggestion, or motivation is essential to avoid impermissible hindsight reconstruction of an applicant’s invention:

Our case law makes clear that the best defense against the subtle but powerful attraction of hind-sight obviousness analysis is *rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references*. Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor’s disclosure as a blueprint for piecing together the prior art to defeat patentability—the essence of hindsight.

175 F.3d at 999, 50 U.S.P.Q.2d at 1617 (emphasis added) (citations omitted).

Applicants respectfully submit that, for at least these reasons, the Examiner has not established a *prima facie* case of obviousness against independent Claim 1, 11, or 21. Applicants respectfully request reconsideration and allowance of independent Claims 1, 11, and 21 and all their dependent claims.

Conclusion

For at least the foregoing reasons, Applicants respectfully request allowance of all pending claims.

If a telephone conference would advance prosecution of this Application, Applicants invite the Examiner to call Travis W. Thomas, Attorney for Applicants, at 214.953.6676.

The Commissioner may charge any fee and credit any overpayment to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P.

Respectfully submitted,
BAKER BOTTS L.L.P.
Attorneys for Applicants

A handwritten signature in black ink, consisting of stylized, bold letters that appear to be 'T-T' followed by a horizontal line.

Travis W. Thomas
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Date: December 15, 2006

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